

Docket No. 22338-1016

U.S. Patent Application No. 10/660,128

Amendment to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Claim Listing:

Claims 1 to 37 (cancelled)

Please add the following new claims:

38. (new) A method of inducing apoptosis of a DR4-expressing cell, comprising contacting said cell with an agonist antibody or fragment thereof that specifically binds to a polypeptide consisting of amino acids 24 to 238 of SEQ ID NO:1.

39. (new) The method of claim 38 which is in vitro.

40. (new) The method of claim 38 which is in vivo.

41. (new) The method of claim 38, wherein the polypeptide is glycosylated.

42. (new) The method of claim 38, wherein said antibody or fragment thereof is polyclonal.

43. (new) The method of claim 38, wherein said antibody or fragment thereof is monoclonal.

44. (new) The method of claim 38, wherein said antibody or fragment thereof is selected from the group consisting of: (a) a chimeric antibody; (b) a Fab fragment; and (c) a F(ab')₂ fragment.

45. (new) The method of claim 38, wherein said antibody or fragment thereof is labeled.

46. (new) The method of claim 45, wherein said label is selected from the group consisting of: (a) an enzyme; (b) a fluorescent label; and (c) a radioisotope.

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47. (new) The method of claim 38, wherein said antibody or fragment thereof specifically binds to said polypeptide in a Western blot.

48. (new) The method of claim 38, wherein said antibody or fragment thereof specifically binds to said polypeptide in an ELISA.

49. (new) The method of claim 38, further comprising contacting said cell with a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL; and (b) a chemotherapeutic drug.

50. (new) The method of claim 49, wherein said compound is TRAIL.

51. (new) The method of claim 49, wherein said compound is a chemotherapeutic drug.

52. (new) A method of inducing apoptosis of a DR4-expressing cell, comprising contacting said cell with an agonist antibody or fragment thereof that specifically binds to a DR4 polypeptide expressed on the surface of a cell, wherein said polypeptide is encoded by a polynucleotide encoding amino acids 1 to 468 of SEQ ID NO:1.

53. (new) The method of claim 52 which is in vitro.

54. (new) The method of claim 52 which is in vivo.

55. (new) The method of claim 52, wherein the polypeptide is glycosylated.

56. (new) The method of claim 52, wherein said antibody or fragment thereof is polyclonal.

57. (new) The method of claim 52, wherein said antibody or fragment thereof is monoclonal.

58. (new) The method of claim 52, wherein said antibody or fragment thereof is selected from the group consisting of: (a) a chimeric antibody; (b) a Fab fragment; and (c) a F(ab')₂ fragment.

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59. (new) The method of claim 52, wherein said antibody or fragment thereof is labeled.

60. (new) The method of claim 59, wherein said label is selected from the group consisting of: (a) an enzyme; (b) a fluorescent label; and (c) a radioisotope.

61. (new) The method of claim 52, wherein said antibody or fragment thereof specifically binds to said polypeptide in a Western blot.

62. (new) The method of claim 52, wherein said antibody or fragment thereof specifically binds to said polypeptide in an ELISA.

63. (new) The method of claim 52, further comprising contacting said cell with a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL; and (b) a chemotherapeutic drug.

64. (new) The method of claim 63, wherein said compound is TRAIL.

65. (new) The method of claim 63, wherein said compound is a chemotherapeutic drug.

66. (new) A method of treating cancer, comprising administering to a patient an agonist antibody or fragment thereof that specifically binds to a polypeptide consisting of amino acids 24 to 238 of SEQ ID NO:1, wherein said antibody or fragment thereof is administered in an amount sufficient to induce apoptosis of a DR4-expressing cancer cell.

67. (new) The method of claim 66, wherein the polypeptide is glycosylated.

68. (new) The method of claim 66, wherein said antibody or fragment thereof is polyclonal.

69. (new) The method of claim 66, wherein said antibody or fragment thereof is monoclonal.

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70. (new) The method of claim 66, wherein said antibody or fragment thereof is selected from the group consisting of: (a) a chimeric antibody; (b) a Fab fragment; and (c) a F(ab')₂ fragment.

71. (new) The method of claim 66, wherein said antibody or fragment thereof is labeled.

72. (new) The method of claim 71, wherein said label is selected from the group consisting of: (a) an enzyme; (b) a fluorescent label; and (c) a radioisotope.

73. (new) The method of claim 66, wherein said antibody or fragment thereof specifically binds to said polypeptide in a Western blot.

74. (new) The method of claim 66, wherein said antibody or fragment thereof specifically binds to said polypeptide in an ELISA.

75. (new) The method of claim 66, further comprising administering to said patient a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL; and (b) a chemotherapeutic drug.

76. (new) The method of claim 75, wherein said compound is TRAIL.

77. (new) The method of claim 75, wherein said compound is a chemotherapeutic drug.

78. (new) A method of treating cancer, comprising administering to a patient an agonist antibody or fragment thereof that specifically binds to a DR4 polypeptide expressed on the surface of a cell, wherein said polypeptide is encoded by a polynucleotide encoding amino acids 1 to 468 of SEQ ID NO:1, and wherein said antibody or fragment thereof is administered in an amount sufficient to induce apoptosis of a DR4-expressing cancer cell.

79. (new) The method of claim 78, wherein the polypeptide is glycosylated.

80. (new) The method of claim 78, wherein said antibody or fragment thereof is polyclonal.

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81. (new) The method of claim 78, wherein said antibody or fragment thereof is monoclonal.

82. (new) The method of claim 78, wherein said antibody or fragment thereof is selected from the group consisting of: (a) a chimeric antibody; (b) a Fab fragment; and (c) a F(ab')₂ fragment.

83. (new) The method of claim 78, wherein said antibody or fragment thereof is labeled.

84. (new) The method of claim 83, wherein said label is selected from the group consisting of: (a) an enzyme; (b) a fluorescent label; and (c) a radioisotope.

85. (new) The method of claim 78, wherein said antibody or fragment thereof specifically binds to said polypeptide in a Western blot.

86. (new) The method of claim 78, wherein said antibody or fragment thereof specifically binds to said polypeptide in an ELISA.

87. (new) The method of claim 78, further comprising administering to said patient a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL; and (b) a chemotherapeutic drug.

88. (new) The method of claim 87, wherein said compound is TRAIL.

89. (new) The method of claim 87, wherein said compound is a chemotherapeutic drug.

90. (new) A method of inducing apoptosis of a DR4-expressing cell, comprising contacting said cell with an antibody or fragment thereof that specifically binds to a polypeptide consisting of amino acids 24 to 238 of SEQ ID NO:1, wherein said antibody or fragment thereof induces apoptosis in a DR4-expressing cell.

91. (new) The method of claim 90 which is in vitro.

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92. (new) The method of claim 90 which is in vivo.
93. (new) The method of claim 90, wherein the polypeptide is glycosylated.
94. (new) The method of claim 90, wherein said antibody or fragment thereof is polyclonal.
95. (new) The method of claim 90, wherein said antibody or fragment thereof is monoclonal.
96. (new) The method of claim 90, wherein said antibody or fragment thereof is selected from the group consisting of: (a) a chimeric antibody; (b) a Fab fragment; and (c) a F(ab')₂ fragment.
97. (new) The method of claim 90, wherein said antibody or fragment thereof is labeled.
98. (new) The method of claim 97, wherein said label is selected from the group consisting of: (a) an enzyme; (b) a fluorescent label; and (c) a radioisotope.
99. (new) The method of claim 90, wherein said antibody or fragment thereof specifically binds to said polypeptide in a Western blot.
100. (new) The method of claim 90, wherein said antibody or fragment thereof specifically binds to said polypeptide in an ELISA.
101. (new) The method of claim 90, further comprising contacting said cell with a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL; and (b) a chemotherapeutic drug.
102. (new) The method of claim 101, wherein said compound is TRAIL.
103. (new) The method of claim 101, wherein said compound is a chemotherapeutic drug.

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104. (new) A method of inducing apoptosis of a DR4-expressing cell, comprising contacting said cell with an antibody or fragment thereof that specifically binds to a DR4 polypeptide expressed on the surface of a cell, wherein said polypeptide is encoded by a polynucleotide encoding amino acids 1 to 468 of SEQ ID NO:1, and wherein said antibody or fragment thereof induces apoptosis in a DR4-expressing cell.

105. (new) The method of claim 104 which is in vitro.

106. (new) The method of claim 104 which is in vivo.

107. (new) The method of claim 104, wherein the polypeptide is glycosylated.

108. (new) The method of claim 104, wherein said antibody or fragment thereof is polyclonal.

109. (new) The method of claim 104, wherein said antibody or fragment thereof is selected from the group consisting of: (a) a chimeric antibody; (b) a Fab fragment; and (c) a F(ab')₂ fragment.

110. (new) The method of claim 104, wherein said antibody or fragment thereof is labeled.

111. (new) The method of claim 110, wherein said label is selected from the group consisting of: (a) an enzyme; (b) a fluorescent label; and (c) a radioisotope.

112. (new) The method of claim 104, wherein said antibody or fragment thereof specifically binds to said polypeptide in a Western blot.

113. (new) The method of claim 104, wherein said antibody or fragment thereof specifically binds to said polypeptide in an ELISA.

114. (new) The method of claim 104, further comprising contacting said cell with a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL; and (b) a chemotherapeutic drug.

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115. (new) The method of claim 114, wherein said compound is TRAIL.

116. (new) The method of claim 114, wherein said compound is a chemotherapeutic drug.

117. (new) A method of treating cancer, comprising administering to a patient an antibody or fragment thereof that specifically binds to a polypeptide consisting of amino acids 24 to 238 of SEQ ID NO:1, wherein said antibody or fragment thereof is administered in an amount sufficient to induce apoptosis of a DR4-expressing cancer cell.

118. (new) The method of claim 117, wherein the polypeptide is glycosylated.

119. (new) The method of claim 117, wherein said antibody or fragment thereof is polyclonal.

120. (new) The method of claim 117, wherein said antibody or fragment thereof is monoclonal.

121. (new) The method of claim 117, wherein said antibody or fragment thereof is selected from the group consisting of: (a) a chimeric antibody; (b) a Fab fragment; and (c) a F(ab')₂ fragment.

122. (new) The method of claim 117, wherein said antibody or fragment thereof is labeled.

123. (new) The method of claim 122, wherein said label is selected from the group consisting of: (a) an enzyme; (b) a fluorescent label; and (c) a radioisotope.

124. (new) The method of claim 117, wherein said antibody or fragment thereof specifically binds to said polypeptide in a Western blot.

125. (new) The method of claim 117, wherein said antibody or fragment thereof specifically binds to said polypeptide in an ELISA.

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126. (new) The method of claim 117, further comprising administering to said patient a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL; and (b) a chemotherapeutic drug.

127. (new) The method of claim 126, wherein said compound is TRAIL.

128. (new) The method of claim 126, wherein said compound is a chemotherapeutic drug.

129. (new) A method of treating cancer, comprising administering to a patient an antibody or fragment thereof that specifically binds to a DR4 polypeptide expressed on the surface of a cell, wherein said polypeptide is encoded by a polynucleotide encoding amino acids 1 to 468 of SEQ ID NO:1, wherein said antibody or fragment thereof is administered in an amount sufficient to induce apoptosis of a DR4-expressing cancer cell.

130. (new) The method of claim 129, wherein the polypeptide is glycosylated.

131. (new) The method of claim 129, wherein said antibody or fragment thereof is polyclonal.

132. (new) The method of claim 129, wherein said antibody or fragment thereof is monoclonal.

133. (new) The method of claim 129, wherein said antibody or fragment thereof is selected from the group consisting of: (a) a chimeric antibody; (b) a Fab fragment; and (c) a F(ab')₂ fragment.

134. (new) The method of claim 129, wherein said antibody or fragment thereof is labeled.

135. (new) The method of claim 134, wherein said label is selected from the group consisting of: (a) an enzyme; (b) a fluorescent label; and (c) a radioisotope.

136. (new) The method of claim 129, wherein said antibody or fragment thereof specifically binds to said polypeptide in a Western blot.

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137. (new) The method of claim 129, wherein said antibody or fragment thereof specifically binds to said polypeptide in an ELISA.

138. (new) The method of claim 129, further comprising administering to said patient a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL; and (b) a chemotherapeutic drug.

139. (new) The method of claim 138, wherein said compound is TRAIL.

140. (new) The method of claim 138, wherein said compound is a chemotherapeutic drug.

141. (new) A composition comprising (i) an agonist antibody or fragment thereof that specifically binds to a polypeptide consisting of amino acids 24 to 238 of SEQ ID NO:1, and (ii) a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL, and (b) a chemotherapeutic drug.

142. (new) The composition of claim 141, wherein said compound is TRAIL.

143. (new) The composition of claim 141, wherein said compound is a chemotherapeutic drug.

144. (new) A composition comprising (i) an agonist antibody or fragment thereof that specifically binds to a DR4 polypeptide expressed on the surface of a cell, wherein said polypeptide is encoded by a polynucleotide encoding amino acids 1 to 468 of SEQ ID NO:1, and (ii) a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL, and (b) a chemotherapeutic drug.

145. (new) The composition of claim 144, wherein said compound is TRAIL.

146. (new) The composition of claim 144, wherein said compound is a chemotherapeutic drug.

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147. (new) A method of inducing apoptosis in a cell expressing DR4, comprising contacting said cell with an agonist antibody or fragment thereof that specifically binds to a polypeptide consisting essentially of the extracellular domain of a DR4 polypeptide.

148. (new) A method of treating cancer, comprising administering to a patient an agonist antibody or fragment thereof that specifically binds to a polypeptide consisting essentially of the extracellular domain of a DR4 polypeptide, wherein said antibody or fragment thereof is administered in an amount sufficient to induce apoptosis of a cancer cell expressing DR4.

149. (new) A composition comprising (i) an agonist antibody or fragment thereof that specifically binds to a polypeptide consisting essentially of the extracellular domain of a DR4 polypeptide, and (ii) a compound that potentiates apoptosis selected from the group consisting of: (a) TRAIL, and (b) a chemotherapeutic drug.

150. (new) A method of inducing apoptosis of a cell expressing DR4, comprising contacting said cell with an antibody or fragment thereof that specifically binds to a polypeptide consisting essentially of the extracellular domain of DR4, wherein said antibody or fragment thereof induces apoptosis in a cell expressing DR4.

151. (new) A method of treating cancer, comprising administering to a patient an antibody or fragment thereof that specifically binds to a polypeptide consisting essentially of the extracellular domain of a DR4 polypeptide, wherein said antibody or fragment thereof is administered in an amount sufficient to induce apoptosis of a cancer cell expressing DR4.